

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electron Devices and Microsystems		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Product Data Management		
Lecturer (for lectures)		Prijjić D. Zoran		
Lecturer/associate (for exercises)		Prijjić D. Zoran		
Lecturer/associate (for OFE)				
Number of ECTS		2	Course status (obligatory/elective)	Elective
Prerequisites		Printed Circuit Boards Design		
Course objectives		<p>Learning objectives are defined so that the student will:</p> <ul style="list-style-type: none"> - Learn about the process of product lifecycle management (PLM); - Know the data management process during the design, production and exploitation of the electronic product (PDM); - Learn advanced data management features in a collaborative environment; - Be able to use embedded data management functions in electrical (ECAD) and mechanical (MCAD) design. 		
Course outcomes		<p>Learning outcomes are defined so that the student will:</p> <ul style="list-style-type: none"> - Distinguish the types of data needed for an appropriate management process; - Select the data management model and include the appropriate functions in the ECAD and MCAD packages for the given project; - Monitor changes over the selected data set during the design of the electronic device, using feedback from the previously included functions; - Form revisions of the existing project; - Implement new versions of the project, using some of the existing audits; 		
Course outline				
Theoretical teaching		The concept of data management. Definition and elements of design of electronic product lifecycle management (PLM). Definition of the product data management process (PDM). Managed datasets. Managed functions. Tools that allow the execution of functions. Examples of application during the design, production and exploitation of an electronic product.		
Practical teaching (exercises, OFE, study and research)		Selection of data managed in the electromechanical design process. Turn on data management functions and their usage in appropriate software packages. Practical realization in a predefined case or in a case suggested by the students.		
Textbooks/references				
1	https://www.plm.automation.siemens.com/global/en/products/teamcenter/			
2	https://www.altium.com/documentation/19.0/display/ADES/Altium+Designer+Documentation			
3	J. Kääriäinen, P. Savolainen, J. Taramaa, and K. Leppälä, "Product Data Management (PDM) Design, exchange and integration viewpoints", Technical Research Centre of Finland, VTT Tiedotteita – Meddelanden – Research Notes 2042, https://www.vtt.fi/inf/pdf/tiedotteet/2000/T2042.pdf			
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
1	1	0	0	0
Teaching methods		Active teaching. Exercises on a computer.		
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures		10	Written exam	
Exercises		40	Oral exam	50

Colloquia			
Projects			